

Scientists study worm for nicotine habit

November 3 2006

A tiny worm may provide big answers for modeling the genetics of nicotine dependence, said researchers at the University of Michigan.

The 1-millimeter *C. elegans* nematode is strikingly similar to humans in its susceptibility to nicotine, the university said in a news release. This discovery should allow researchers to better understand how nicotine dependence works and possibly lead to ways to block the cravings that humans experience.

The research team found that the nematode could get hooked on nicotine as well as respond to nicotine exposure, tolerance, sensitization and withdrawal -- similar to humans, the university said.

Researchers said the worm's response paralleled humans', but identifying the gene that triggered the behavior in both was easier in the worm.

When researchers blocked or removed the gene from the worm, it didn't respond to nicotine exposures, the university said. When the gene was reintroduced, the nicotine sensitivity resumed.

Copyright 2006 by United Press International

Citation: Scientists study worm for nicotine habit (2006, November 3) retrieved 1 May 2024 from <https://medicalxpress.com/news/2006-11-scientists-worm-nicotine-habit.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.